

INTERNATIONAL SEARCH REPORT

International Application No.

PCT/US 03/36618

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C09G1/02 H01L21/3105 H01L21/321

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C09G H01L C09K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/083804 A (RODEL HOLDINGS INC) 24 October 2002 (2002-10-24) page 2, line 26 - page 3, line 10 page 4, lines 19-23 page 7, paragraph 1	1-5,8-13
X	EP 1 223 609 A (HITACHI CHEMICAL CO LTD) 17 July 2002 (2002-07-17) paragraphs '0012!', '0 18! - '0020!', '0 22!', '0 49!', '0 52!', '0 53!', '0 60!', '0 61!', '0 63!', '0 64!	1-9,13
X,P	EP 1 357 161 A (JSR CORP) 29 October 2003 (2003-10-29) paragraphs '0001!', '00 6!', '00 7!', '00 9!', '0 10!', '0 31!', '0 32!', '0 69!', '0 70!; example 1	1-10,13
	-/-	

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

14 April 2004

Date of mailing of the international search report

21/04/2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X, P	<p>WO 02/096999 A (NOJO HARUKI ; BERAR PASCAL (JP); EKC TECHNOLOGY K K (JP); YOSHIDA AKIT) 5 December 2002 (2002-12-05) page 6, lines 19-22 page 15, lines 7-20; claims -----</p>	<p>1-5, 8-10, 13</p>

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1, 2

Present claims 1 and 2 relate to a product defined by reference to a desirable characteristic or property, namely, when using the product (slurry) for polishing a semiconductor substrate, the substrate removal rate exhibits a peak when the relative movement rate between the polishing pad and the substrate is increased.

The claims cover all products comprising metal oxide particles and a water-soluble polymer having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the products by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the products defined in terms of composition.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.: 1, 2
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful international Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

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Patent document cited in search report		Publication date		Patent family member(s)	Publication date
WO 02083804	A	24-10-2002	EP	1385915 A1	04-02-2004
			WO	02083804 A1	24-10-2002
			US	2002189169 A1	19-12-2002
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			EP	1223609 A1	17-07-2002
			CN	1371529 T	25-09-2002
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			CN	1453328 A	05-11-2003
			EP	1357161 A2	29-10-2003
			US	2003196386 A1	23-10-2003
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			CN	1463287 T	24-12-2003
			WO	02096999 A1	05-12-2002
			US	2003182868 A1	02-10-2003